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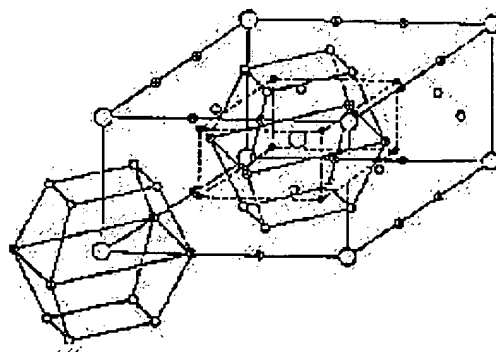
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## (54) IRON-RARE EARTH PERMANENT MAGNET MATERIAL AND ITS MANUFACTURE

(57)Abstract:

PURPOSE: To stably obtain a ThMn<sub>12</sub> tetragonal structure showing excellent permanent magnet characteristics while the structure secures large saturation magnetization.

CONSTITUTION: This material is composed substantially of Fe containing 3-30at.% R and 0.5-15at.% M1 and has a main phase composed of ThMn<sub>12</sub> tetragonal structure. The R represents the combination of one or two or more kinds of elements selected from among Y, Th, and all lanthanoid elements and M1 represents the combination of three or more kinds of elements selected from among Ti, V, Mo, Nb, Ga, Cr, Al, Mn, Ta, W, Mg, Sn, and Ge.



## LEGAL STATUS

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